

# Mineral Industry Surveys

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## MANGANESE IN SEPTEMBER 2005

On a gross-weight basis, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 29,800 metric tons (t) in September 2005, which was about the same as that in August 2005, according to the U.S. Geological Survey. This figure increases to 32,200 t when estimates for annual respondents are added on the basis of 2004 data. Corresponding industry stocks of ore at the end of the month were 295,000 t, which includes an estimate for annual respondents on the basis of 2004 data. This was a 31% increase over that of the August 2005.

Domestic consumption of manganese ore during the third quarter of 2005 was 85,600 t, which was a 22% decrease from that during the second quarter of 2005, and a 4% decrease from the revised third quarter of 2004 (107,000 t). Domestic consumption during the first 9 months of 2005 was 295,000 t,

which was 4% lower than the revised consumption for the first 9 months of 2004 (308,000 t).

Foreign trade data for September will appear in a subsequent report. The following comparisons of trade data were made on the basis of manganese content (table 1). The data for August 2005 tabulated in this report indicate that the total exports of 1,600 t were 41% greater than those of the prior month, owing primarily to increases in exports of ferromanganese, silicomanganese, manganese metal, and manganese ore. Manganese imports were 49,100 t, which was a decrease of 19% compared with those of July. The decrease in manganese imports was primarily due to decreases in ferromanganese and silicomanganese imports.

### Ferroalloy Prices, manganese content

	High-carbon ferromanganese <sup>1</sup> (dollars per gross ton)	Medium-carbon ferromanganese <sup>1</sup> (cents per pound)	Silicomanganese <sup>1</sup> (cents per pound)	Manganese metal <sup>2</sup> (cents per pound)
September 1	500.00-520.00	44.50-47.00	29.00-30.00	85.00-87.00
September 8	510.00-520.00	47.00-50.00	34.00-36.00	84.00-87.00
September 15	510.00-520.00	47.00-50.00	33.00-34.50	84.00-87.00
September 22	520.00-540.00	44.00-53.00	37.00-39.00	84.00-87.00
September 29	540.00-550.00	47.00-54.00	38.00-40.00	82.00-85.00

### Ore Prices, dollars per metric ton unit, manganese content<sup>3</sup>

	44% Manganese Ore <sup>2</sup>	48% Manganese Ore <sup>2</sup>
September 1	1.90-2.10	2.50-2.70
September 8	1.90-2.10	2.50-2.70
September 15	1.90-2.10	2.50-2.70
September 22	1.90-2.00	2.40-2.60
September 29	1.90-2.00	2.40-2.60

<sup>1</sup>Source: Platts Metals Week, dealer import price.

<sup>2</sup>Source: Ryan's Notes, North American transaction price.

<sup>3</sup>To determine dollars per metric ton, multiply the manganese content percentage by the price.

TABLE 1  
SELECTED U.S. FOREIGN TRADE IN MANGANESE<sup>1</sup>

(Metric tons, manganese content)<sup>2</sup>

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2004:						
August	4,410	88,900 <sup>r</sup>	93,300 <sup>r</sup>	1,940	543	2,490
January-August	146,000	382,000 <sup>r</sup>	528,000 <sup>r</sup>	30,100	5,790	35,900
2005:						
January	7,650	45,000	52,600	162	955	1,120
February	40,700	29,000	69,700	111	1,170	1,280
March	22,300	42,000	64,300	206	1,160	1,360
April	38,400	39,900	78,300	2,350	778	3,130
May	16,500	47,400	64,000	364	1,380	1,740
June	19,500	41,000	60,500	272	1,550	1,820
July	21,000	40,000	61,000	197	934	1,130
August	23,800	25,400	49,100	234	1,360	1,600
Total	190,000	310,000	499,000	3,900	9,290	13,200

<sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

Source: U.S. Census Bureau.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN AUGUST 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
Australia	4,710	3,110	\$2,560,000	25,300	16,800	\$15,000,000
Canada	--	--	--	350	311	195,000
France	--	--	--	2	1	2,860
Georgia	--	--	--	6,500	4,950	4,290,000
Kazakhstan	--	--	--	20	13	17,500
Korea, Republic of	--	--	--	216	156	305,000
Mexico	4,400	2,880	2,890,000	13,600	8,990	10,400,000
Norway	4,500	2,830	4,440,000	48,600	30,600	48,100,000
Romania	10,600	6,860	7,480,000	57,100	38,300	41,700,000
Russia	--	--	--	11,400	7,750	9,250,000
South Africa	1,820	1,180	1,020,000	64,400	42,600	40,600,000
Spain	--	--	--	4,000	2,670	2,770,000
Total	26,000	16,900	18,400,000	231,000	153,000	173,000,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN AUGUST 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
<b>Low carbon:</b>						
China	279	240	\$442,000	12,000	10,200	\$19,700,000
Japan	--	--	--	1,800	1,450	2,170,000
Korea, Republic of	--	--	--	1,390	1,040	1,480,000
Mexico	731	588	822,000	4,320	3,470	4,940,000
Netherlands	--	--	--	17	14	29,800
Norway	--	--	--	221	181	369,000
South Africa	359	331	640,000	1,840	1,700	3,380,000
Spain	--	--	--	36	28	41,800
Total, low carbon	1,370	1,160	1,900,000	21,600	18,100	32,100,000
Total, general imports of low carbon	1,370	1,160	1,900,000	21,600	18,100	32,100,000
<b>Medium carbon, 1%-2% C:</b>						
China	--	--	--	3,150	2,520	4,490,000
Korea, Republic of	--	--	--	9,000	7,200	7,430,000
Mexico	2,080	1,680	1,780,000	11,900	9,360	12,300,000
Norway	--	--	--	1,810	1,480	2,610,000
South Africa	1,000	809	720,000	21,200	17,100	25,000,000
Total, m.c., 1%-2% C	3,080	2,490	2,500,000	47,000	37,700	51,900,000
Total, general imports of m.c., 1%-2% C	3,080	2,490	2,500,000	47,000	37,700	51,900,000
<b>High carbon:</b>						
Australia	--	--	--	4,460	3,420	2,380,000
Brazil	--	--	--	13,800	10,700	9,720,000
Canada	--	--	--	18	13	17,000
China	--	--	--	7,500	5,720	5,250,000
France	--	--	--	4,100	3,200	2,830,000
Hong Kong	--	--	--	3,360	2,550	1,960,000
Mexico	4	3	5,270	794	621	723,000
Norway	114	92	100,000	114	92	100,000
Poland	11	9	17,500	11	9	17,500
South Africa	2,030	1,530	833,000	63,200	49,100	40,700,000
Ukraine	--	--	--	2,840	2,230	1,260,000
Total, high carbon	2,160	1,640	956,000	100,000	77,700	65,000,000
Total, general imports of high carbon	2,160	1,640	956,000	100,000	77,700	65,000,000
Grand total	6,610	5,280	5,360,000	169,000	133,000	149,000,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN AUGUST 2005<sup>1,2</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>3</sup>
<b>More than 20%, but less than 47% manganese:</b>						
China	--	--	--	5,140	1,050	\$35,100
Gabon	--	--	--	5,660	6,530	974,000
Ghana	--	--	--	18	7	2,340
Mexico	--	--	--	5,870	3,240	675,000
Namibia	--	--	--	26,000	10,400	1,950,000
United Kingdom	--	--	--	87	40	6,000
Total	--	--	--	42,800	21,300	3,640,000
<b>47% or more manganese:</b>						
Australia	--	--	--	22,500	11,800	2,810,000
Belgium	36	25	\$29,200	114	75	87,000
Brazil	230	149	204,000	9,000	5,200	1,480,000
China	--	--	--	8,600	4,300	781,000
France	--	--	--	60	56	6,670
Gabon	--	--	--	197,000	102,000	16,100,000
Ghana	--	--	--	72	50	4,320
India	3	3	4,200	85	42	13,000
South Africa	40,700	19,800	4,630,000	68,000	33,100	7,170,000
Total	41,000	20,000	4,870,000	305,000	157,000	28,500,000
Grand total	41,000	20,000	4,870,000	348,000	178,000	32,100,000

-- Zero.

<sup>1</sup>Quantities for general imports and imports for consumption are identical.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN AUGUST 2005<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>	Year to date	
			Quantity	Customs value <sup>2</sup>
Australia	5,380	\$7,070,000	10,300	\$13,500,000
Belgium	19	32,400	336	752,000
Brazil	--	--	377	424,000
China	405	413,000	5,630	5,780,000
Germany	2	16,100	77	252,000
Japan	506	716,000	2,870	3,950,000
Total	6,310	8,250,000	19,600	24,700,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN AUGUST 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>	Year to date	
			Gross weight	Customs value <sup>2</sup>
<b>Unwrought flake:</b>				
China	852	\$1,160,000	9,020	\$13,500,000
Germany	--	--	7	28,200
South Africa	535	1,040,000	4,230	7,370,000
Total	1,390	2,200,000	13,300	20,900,000
<b>Unwrought powder:</b>				
China	675	975,000	861	1,320,000
South Africa	487	1,020,000	2,820	5,580,000
Total	1,160	1,990,000	3,680	6,900,000
<b>Unwrought, other:</b>				
China	120	173,000	220	376,000
Germany	139	284,000	2,220	4,330,000
Spain	264	785,000	2,160	4,930,000
South Africa	140	279,000	817	1,550,000
Total	663	1,520,000	5,410	11,200,000
<b>Other manganese, wrought:</b>				
Austria	--	--	1	53,300
China	--	--	300	488,000
France	--	--	21	223,000
Germany	--	--	4	42,300
Spain	11	24,900	67	145,000
United Kingdom	--	--	2	7,070
Total	11	24,900	395	959,000
Grand total	3,220	5,730,000	22,700	40,000,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Note: Imports for consumption of metallic manganese waste and scrap totaled 13 tons, all of which was from Canada, to give a year-to-date total of 405 tons.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN AUGUST 2005<sup>1</sup>

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	August	Year to date	August	Year to date	August	Year to date	August	Year to date
Australia	--	--	--	--	3	3	1	7
Belgium	--	--	--	--	--	--	144	734
Brazil	--	--	--	--	--	11	--	19
Canada	302	2,430	775	6,790	38	280	19	237
Chile	--	4	--	1	--	--	--	--
China	36	4,680	--	--	--	--	--	--
Colombia	--	6	--	--	--	--	--	--
Denmark	--	17	--	--	--	--	--	--
El Salvador	--	--	--	--	--	--	13	13
France	--	--	--	--	10	101	--	--
Germany	33	120	--	--	--	--	54	244
Hong Kong	--	--	--	--	--	--	(3)	2
Indonesia	20	36	--	--	11	22	2	5
Israel	4	4	--	--	--	--	--	--
Italy	--	--	--	--	--	--	--	4
Japan	--	--	--	--	--	--	113	395
Korea, Republic of	34	34	--	--	--	--	--	27
Kuwait	--	83	--	--	--	--	--	--
Mexico	20	101	119	669	10	318	9	178
Netherlands	--	--	--	2	2	22	--	--
New Zealand	--	1	--	--	--	--	--	--
Peru	--	--	--	--	--	--	--	5
Poland	--	193	--	--	--	--	--	--
Russia	--	21	--	--	--	--	--	--
Singapore	3	3	--	--	--	--	--	--
Spain	--	--	--	--	--	8	--	10
Sweden	19	75	--	--	--	--	--	95
Taiwan	--	--	--	--	--	--	--	(3)
Trinidad and Tobago	--	--	--	--	--	--	--	1
United Kingdom	--	--	--	--	--	--	1	1
Venezuela	--	--	--	--	--	--	1	4
Total	471	7,800	894	7,460	74	765	357	1,980

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes manganese-aluminum, some other alloys, and waste and scrap.

<sup>3</sup>Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 320 tons, of which 280 tons went to Mexico and 40 tons went to Canada, to give a year-to-date total of 1,148 tons.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN AUGUST 2005, BY CLASS<sup>1</sup>

Class	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)	Year to date		
				Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	390	\$291	Mexico 279; \$121	3,330	\$2,050	Mexico 1,590; \$649
Manganites, manganates, and other permanganates	--	--	--	38	123	Germany 38; \$123
Potassium permanganate	46	98	Czech Republic 46; \$98	675	1,410	Czech Republic 433; \$913
Sodium permanganate <sup>3</sup>	58	87	China 58; \$87	269	649	Germany 135; \$476
Sulfates, basket category, including manganese sulfate	1,590	1,420	Mexico 702; \$374	29,000	17,400	Mexico 14,500; \$7,700
<b>Exports:</b>						
Manganese dioxide	613	579	Canada 226; \$110	3,890	3,110	Canada 2,400; \$1,090
Manganese oxides other than dioxide	1,160	837	Canada 821; \$316	7,520	5,010	Canada 5,310; \$1,950
Manganites, manganates, and other permanganates	29	44	Mexico 28; \$41	75	178	Canada 33; \$74
Potassium permanganate	465	1,060	Canada 168; \$377	2,720	5,710	Spain 1,270; \$2,420
Sodium permanganate <sup>3</sup>	53	168	Japan 30; \$90	440	1,200	Japan 279; \$779
Sulfates, basket category, including manganese sulfate	1,620	1,100	Canada 1,390; \$546	15,100	10,500	Canada 12,800; \$5,660

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>For imports, Customs value; for exports, free alongside ship value.

<sup>3</sup>In December 2004, the U.S. Harmonized Tariff Schedule was changed for manganites, manganates and permanganates to implement the United States-Australia Free Trade Agreement. Starting in 2005, sodium permanganate is tracked separately from the "manganites, manganates, and other permanganates" trade category.

Source: U.S. Census Bureau.